

Notice of Allowability

Application No.

09/928,433

Examiner

J. Bret Dennison

Applicant(s)

MENDIOLA ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/19/2007.
2. ☒ The allowed claim(s) is/are 1-15 and 17-19.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☒ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date attached.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

EXAMINER'S AMENDMENT

An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, and amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Juneko Jackson (Reg. No. 48,870) on 11 May 2007.

Please amend as follows:

In the Claims

1. (currently amended) In an instant messaging (IM) system comprising: an IM server having a plurality of clients, one or more of the clients with IM client applications of the same types and one or more of the clients with IM client applications of different types, a Short Message Service Center (SMSC) server to which at least one of the clients is connected, a computer network interconnecting the IM server and the SMSC server to provide IM communications therebetween, wherein the SMSC server ~~utilises~~ utilizes a sequential message handshaking protocol for transmitting and receiving messages to and from the IM server, whereby a confirmation of the successful transmission or receipt of a message is required to be received or sent by said SMSC server before a subsequent message is able to be transmitted or received, and wherein that portion of the computer network interfaced with the IM server is prone to latency

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and instability; the computer network including:

a buffer server configured to store and transmit messages between the SMSC server and the IM server, the buffer server interconnected with the SMSC server using a sequential message handshaking protocol corresponding to that used by the SMSC server, wherein the interconnection provides for the communication of messages between the buffer server and the SMSC server in steady, timed flows with minimal latency and connection disruptions;

said buffer server also being interconnected with the IM server using a protocol compatible therewith in a manner where message handshaking is not required to be performed sequentially and thus accommodate higher latency and instability problems with the computer network therebetween.

2. (currently amended) An instant messaging (IM) system comprising:

an IM server having a plurality of clients, one or more of the clients with IM client applications of the same types and one or more of the clients with IM client applications of different types;

a Short Message Service Center (SMSC) server to which at least one of said clients is connected;

a computer network interconnecting said IM server and said SMSC server to provide IM communications therebetween and wherein that portion of the computer network interfaced with the IM server is prone to latency and instability;

said SMSC server ~~utilising~~ utilizing a sequential message handshaking protocol

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for transmitting and receiving messages to and from the IM server, whereby a confirmation of the successful transmission or receipt of a message is required to be received or sent by said SMSC server before a subsequent message is able to be transmitted or received;

a buffer server configured to store and transmit messages between the SMSC server and the IM server, the buffer server interconnected with said SMSC server using a sequential message handshaking protocol corresponding to that used by said SMSC server, the interconnection providing for the communication of messages between said buffer server and said SMSC server in steady, timed flows with minimal latency and connection disruptions;

said buffer server also being interconnected with the IM server using a protocol compatible therewith in a manner where message handshaking is not required to be performed sequentially to accommodate higher latency and instability of the computer network therebetween.

3. (currently amended) The invention as claimed in claim 1 or 2, wherein the buffer server is ~~substantially~~ co-located with the SMSC server, and connected thereto via a direct electronic link so as to ensure the communication of messages between the buffer server and the SMSC server in steady, timed flows with minimal latency and connection disruptions.

4. (previously presented) The invention as claimed in claim 1 or 2, wherein if the

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SMSC server is located in a highly reliable internet exchange with a highly reliable internet infrastructure, the buffer server is connected via the highly reliable internet exchange and infrastructure to the SMSC server.

5. (previously presented) The invention as claimed in claim 1 or 2, wherein said SMSC server is an SMSC server of a Global System for Mobile communications (GSM) network and said client types connected to the SMSC server have Short Messaging Service (SMS) capability that is controlled and managed by said SMSC server to provide for SMS there between and IM between the SMSC server and the IM server.

6. (previously presented) The invention as claimed in claim 1 or 2, wherein said sequential message handshaking protocol is the Computer Interface to Message Distribution 2 protocol (CIMD2).

7. (previously presented) The invention as claimed in claim 1 or 2, wherein said computer network interconnecting said IM server and said buffer server is the internet.

8. (original) The invention as claimed in claim 7, wherein the IM server is located within a tier 1 internet exchange.

9. (previously presented) The invention as claimed in claim 1 or 2, wherein the IM server is interconnected to a plurality of SMSC servers via the computer network, each

SMSC server ~~utilising~~ utilizing a sequential message handshaking protocol for transmitting and receiving messages with the IM server, whereby said buffer server is associated with and dedicated to each SMSC server.

10. (previously presented) The invention as claimed in claim 1 or 2, wherein the messages are communicated as streaming data between said buffer server and the SMSC server in well-defined time increments or cycles or sporadically depending on when the messages become available to send.

11. (previously presented) The invention as claimed in claim 1 or 2, wherein the buffer server has sufficient memory to buffer up to 255 instant messages received from the SMSC server to accommodate latency and instability problems associated with the computer network connection to the IM server.

12. (previously presented) The invention as claimed in claim 1 or 2, wherein the IM server is provided with a communication buffer mirrored to the buffer of said buffer server of the SMSC server and wherein the buffer server has sufficient memory to buffer up to 255 instant messages received from the communication buffer to accommodate different communication speeds between the buffer server and the SMSC server.

13. (previously presented) The invention as claimed in claim 1 or 2, wherein the IM server is provided with a communication buffer mirrored to the buffer of said buffer

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server of the SMSC server, and each buffer comprises a circular array to contain the messages currently being processed by the instant messaging system at any one time, and wherein a plurality of statuses are recorded against each message to indicate its particular stage of communication between the IM server and the SMSC server.

14. (previously presented) The invention as claimed in claim 1 or 2, wherein the IM server is provided with a communication buffer mirrored to the buffer of said buffer server of the SMSC server, and each said buffer is provided with synchronization means to reconstruct messages that may have been lost in transit between the buffers as a result of an extended interruption to the computer network linking the same.

15. (previously presented) The invention as claimed in claim 13, wherein each said buffer is provided with synchronization means to reconstruct messages that may have been lost in transit between the buffers as a result of an extended interruption to the computer network linking the same, and wherein said synchronization means reconstructs messages from said circular array having regard to the statuses of the current messages being processed by the instant messaging system.

16. (canceled)

17. (currently amended) A method for instant messaging (IM) between a plurality of clients connected to a ~~centralised~~ centralized IM server, wherein one or more of the

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clients use an IM system different than one or more other of said clients, one client having an IM application provided via a remote network connected to the IM server via a computer network and a Short Message Service Center (SMSC) server, and the SMSC server ~~utilising~~ utilizing a sequential message handshaking protocol for transmitting and receiving messages to and from the IM server through a buffer server configured to store and transmit messages between the SMSC server and the IM server, whereby a confirmation of the successful transmission or receipt of a message is required to be received or sent by said SMSC server before a subsequent message is able to be transmitted or received and wherein that portion of the computer network interfaced with the IM server to the buffer server is prone to latency and instability; the method comprising:

buffering communications with that portion of the computer network interfaced with the SMSC server and using a sequential handshaking protocol corresponding to that used by the SMSC server, so that the communication of messages with the SMSC server is provided in steady, timed flows with minimal latency and connection disruptions;

simultaneously buffering communications with that portion of the computer network interfaced with the IM server using a communication protocol compatible therewith in a manner where message handshaking is not required to be performed sequentially thereby accommodating higher latency and instability that may be associated with that portion of the computer network; and

performing the buffering in a manner so as to ~~maximise~~ maximize message

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throughput.

18. (currently amended) A method as claimed in claim 17, wherein the buffering is performed via a direct electronic link to the SMSC server, where the SMSC server is ~~substantially~~ co-located with the buffer server, so as to ensure the communication of messages between the buffer server and the SMSC server in steady, timed flows with minimal latency and connection disruptions.

19. (previously presented) A method as claimed in claim 17, wherein if the remote network is located in a highly reliable internet exchange with a highly reliable internet infrastructure, the buffering may be performed via the highly reliable internet exchange and infrastructure to the SMSC server.

20. (canceled)

Allowable Subject Matter

Claims 1-15 and 17-19 are allowed in view of the Applicant's arguments (see Applicant's Response, filed 10/24/2006) and the cited prior art of record. The independent claims recite using a buffer server to transmit messages between the IM server and the SMSC server, using a sequential handshaking protocol between the buffer server and the SMSC server, and using a protocol where message handshaking is not required between the buffer server and the IM server, which, in addition to the rest

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of the claim limitations of the independent claims, are distinguished from the prior art.

For support, see Instant Specification (page 14, lines 17 to page 16, line 24).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Oath/Declaration

The oath or declaration is defective. An oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

It must identify the citizenship of each inventor.

It must identify the city and either state or foreign country of residence of each inventor. The residence information may be provided on either an application data sheet or supplemental oath or declaration.

It must state that the person making the oath or declaration believes the named inventor or inventors to be the original and first inventor or inventors of the subject matter which is claimed and for which a patent is sought.

It must state that the person making the oath or declaration has reviewed and understands the contents of the specification, including the claims, as amended by any amendment specifically referred to in the oath or declaration.

It must state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 CFR 1.56.

Applicant is now required to submit a substitute declaration or oath to correct the deficiencies set forth above. The substitute oath or declaration must be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability" (PTO-37). Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136. Failure to timely file the substitute declaration (or oath) will result in **ABANDONMENT** of the application. The transmittal letter accompanying the declaration (or oath) should indicate the date of the "Notice of Allowance" (PTOL-85) and the application number in the upper right hand corner.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Bret Dennison whose telephone number is 571-272-3910. The examiner can normally be reached on Monday-Thursday 9am-5:30pm Eastern.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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